Does nurses' self-concept mediate the relationship between job satisfaction and burnout among Nigerian nurses

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ABSTRACT

The study explored the mediating role of nurses' general self-concept on the relationship between job satisfaction and burnout among a sample of 170 nurses in two Nigerian public health facilities. Three self-report measures were used to collect data for nurses' general self-concept, job satisfaction and burnout from the participants. The study combined correlation and cross-sectional survey design. The result of the Pearson r correlation showed that nurses' general self-concept correlated positively with job satisfaction but both of them correlated negatively with burnout (emotional exhaustion, depersonal-ization and reduced personal accomplishment). Further analysis with conditional process analysis (Hayes, 2013) showed that nurses' general self-concept mediated the relationship between job satisfaction and emotional exhaustion, job satisfaction and reduced personal accomplishment, but it did not mediate the relationship between job satisfaction and depersonalization. The discussion was based on the findings while limitations, suggestions for future studies and implications of the findings were highlighted.
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1. Introduction

Burnout is a chronic state of exhaustion due to long-term inter-personal stress which is common within human service profes-sions (Schwarzer & Hallum, 2008). Nursing is one of the human service professions and is specifically vital in the medical and men-tal health care delivery. Nurses are involved in the various units of the hospital administration as clinical staff and the nature of their work make them highly vulnerable to burnout syndromes (Khamisa, Peltzer, & Oldenburg, 2013). Nursing may involve issues such as prolonged direct personal contact of an emotional nature with a large number of patients, role ambiguity, responsibility for other's live, work overload, shift work, staff issues, overtime, poor salaries and lack of opportunities for advancement (Rothmann, Van Der-Colff, & Rothmann, 2006). These issues may create some mis-match between the realities of the job and the individual's expec-tations which may in turn lead to frustration, disappointment and a feeling of dissatisfaction; a tendency that is often linked with decreased productivity, loss of confidence and negative behavioral changes which are harmful to the individual, organization and their clients (Coker, 2010; Wood & Killion, 2007).

Furthermore, if this mismatch is not addressed, stress may accumulate and combine with emotional emptiness to signify the first stage of burnout (i.e. mental and physical exhaustion) and left untreated, the burnout processes will continue through three more stages which include feeling of indifference, feeling of failure as a person and feeling of emotional numbness (Spinetta, Jankovic, & Ben Arush, 2001). Thus Leiter and Maslach (1998) summarized burnout as a syndrome of emotional exhaustion, depersonalization and reduced accomplishment. Some of the consequences of burn-out were highlighted by Ahola, Honkonen, and Prikola (2008), Lasebikan and Oyetunde (2012) and include the following:

- Physical manifestations such as exhaustion, lack of energy, workplace accident, insomnia and headache.
- Psychological manifestations such as anger, depression, loss of idealism, cynicism, dissatisfaction with personal accomplish-ment, irritability and anxiety.
- Interpersonal manifestations such as aggression towards patients and co-workers, marital dysfunction and inability to communicate with family, friends and patients.

Given these consequences, several studies in Nigeria have focused on the prevalence of burnout among health care workers (Aguwa, Nduka, & Arinze-Onyia, 2014; Lasebikan & Oyetunde, 2012; Okwaraji & Aguwa, 2014; Pindar, Coker, Wakil, Morakinyo,

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& Coker, 2012). These studies found some significant incidence of burnout syndrome among health care workers ranging from 21.5% to 53.8% and further suggested that there is an urgent need to conduct further studies on other concomitant factors with burnout so that appropriate steps could be taken in designing programs which are geared towards preventing or reducing burnout.

No single study can explore all the possible correlates of burnout. However, some theoretical models and empirical evidences have created some lead to exploring these factors. One of such models was postulated by Maslach (1982), Maslach, Schalifeli, and Leiter (2001) and it emphasizes the importance of individual factors (internal and external) in understanding burnout syndrome. The individual internal factors may include nurses' general self-concept and job satisfaction. Self-concept specifically may be described as consisting of beliefs, hypotheses and assumptions that people have about themselves (Coopersmith & Feldman, 1974). Following Shavelson, Hubner, and Stanton (1976) and Marsh (1990) proposal of multidimensionality of self-concept, Cowin (2002) also designed a multidimensional self-concept scale for nurses and one of the subscales is nurses' general self-concept. Cowin described this as an inclusive sense of self-esteem that is not specific to any area of nursing profession but encompasses a positive regard of self (Cowin, 2002).

Job satisfaction on the other hand has been described by some theorists as involving two-factors internal and external elements (Herzberg & Mausner, 1959). The present study however, viewed job satisfaction from a global perspective involving inner positive emotional reactions and attitudes individuals have towards their job which may depend on both the nature of the job and the expectations that individuals have of what their job should provide (Lease, 1998; Lu, While, & Barriball, 2005; Oshagbemi, 1999).

The study hypothesized that internal and external factors may work independently or interdependently to determine how people handle issues that are related to workplace. Therefore internal factor such as nurses' general self-concept may be one of the mechanisms or mediate how nurses conceive other factors such as job satisfaction which may in turn influence whether or not they may experience burnout. Some empirical evidences showed that there are positive relationships between self-concept and job satisfaction (see: Ahmed, 2012; Cowin, 2001, 2002; Karanikola, Papathanassoglou, Giannakopoulou, & Koutroubas, 2007); job satisfaction and burnout (see: Abushaikha & Sala-Hazboun, 2009; Chenevey, Ewing, & Whittington, 2008; Dolan, 1987; Piko, 2006; Rosales, Labrague, & Rosales, 2013); self-concept and burnout (see: Brouwers & Tomic, 2000; Consiglio, Borgogni, Alessandri, & Schaufeli, 2013; Schwarzer & Hallum, 2008; Skaalvik & Skaalvik, 2010). However, only a few studies (for instance, Hombrados-Mendieta & Cosano-Rivas, 2011) have provided evidence to show that self-concept can mediate the relationship between job satisfaction and burnout among nurses thus, this study.

The objectives of the present study are to investigate the following:

i. What are the extent of the correlations between nurses' general self-concept and burnout; nurses' general self-concept and job satisfaction; and job satisfaction and burnout among sampled nurses?
ii. To what extent will nurses' general self-concept mediate the relationship between job satisfaction and burnout among the sampled nurses?

2. Method

2.1. Design

The design adopted for this study was a combination of cross-sectional and predictive design as described in Johnson (2001).

This combination allowed the researcher to collect the data for the study at a particular point in time and use conditional process analysis which is based on correlation to analyze the extent of relationships and mediations between the latent and observed variables.

2.2. Participants

One hundred and seventy nurses participated in the study. These participants were drawn from two teaching hospitals in Enugu State, South Eastern Nigeria. Modal instance and convenience sampling technique (Blankertz, 1998; Teddlie & Yu, 2007) was adopted in selecting the participants since it allows the researchers to involve only the nurses who were on the morning and afternoon shift during the time of the research to participate. 98% of the populations of the nurses in the hospitals were of Igbo ethnic origin and the remaining 2% were of Igala, Ijaw and Ika Igbos. Thus, only the nurses of Igbo ethnic origin were included in the study (since they are the ethnic group that occupy the whole of the South Eastern part of Nigeria). Female participants were (94.12% = 160) while male participants were (5.88% = 10). Their age range was from 22 to 50 years (average of 34.4 years, $SD = 2.3$).

3. Instruments

3.1. Nurses' general self-concept (NGSC)

This is a subscale of a multidimensional Nurses self-concept questionnaire developed by Cowin (2000) which describes nurses' general self-concept as an inclusive sense of self-esteem, which encompasses a positive regard of the self with nursing. It contains six items and is arranged in eight point Likert format ranging from 1 = definitely false to 8 = definitely true. All items are positively worded and each dimension contains a balance of affective (1 feel) and cognitive (1 think) declarative statements (e.g., I get a lot of enjoyment from being a nurse). High scores are interpreted as high nurses' general self-concept. Cowin (2000) reported a Cronbach's alpha of .96 for the six items and the Cronbach's alpha of the six items for the present study is .75.

Short version of Minnesota satisfaction questionnaire (MSQ) by Weiss, Dawis, England, and Lofquist (1967). This contains 20 items which are meant to assess how individuals are satisfied with their present Job, what things the individuals are satisfied with or not satisfied with in their job. The questionnaire is arranged in a five point Likert format ranging from 1 = Very Dissatisfied to 5 = Very Satisfied. It consists of two subscales (intrinsic satisfaction and extrinsic satisfaction) but the item responses are summed or averaged to create a total general satisfaction score – the lower the score, the lower the level of job satisfaction. Weiss et al. (1967) reported Hoyt reliability ranging from .87 to .92 for the general satisfaction subscales and .84 and .77 for the intrinsic and extrinsic subscales respectively. The Cronbach's alpha for the 20 items is .91 for the present study.

The Maslach Burnout Inventory Human Services Survey (MBI-HSS) by Maslach and Jackson (1981, 1986). The MBI-HSS contains 22 items which are used to assess the three components of the burnout syndrome such as emotional exhaustion which measures feelings of being emotionally overextended and exhausted by one's work (e.g., I feel emotionally drained from my work), Depersonalization which measures negative cynical attitudes and feelings about one's clients and excessively detached responses to other people at work (e.g., I don't really care what happens to some patients), Personal accomplishment which measures feelings of competence and successful achievement in one's work (e.g., I deal very effectively with the problems of my patients). The items are

answered in terms of the frequency with which the respondent experiences these feelings on a 7 – point fully anchored scale ranging from Never = 0 to Every Day = 6). The emotional exhaustion subscale contains nine items; depersonalization subscale contains five, while personal accomplishment subscale contains eight items. The Cronbach's coefficient alphas for the scale according to Maslach and Jackson (1981) are .89 for emotional exhaustion, .77 for depersonalization, and .74 for personal accomplishment. The Cronbach's coefficient alphas for the study are: .90 for emotional exhaustion, .79 for depersonalization, and .71 for personal accomplishment.

3.2. Procedure

Permission to carry out the study was obtained from the institutional review board of the Faculty of the Social Sciences, Nnamdi Azikiwe University Awka. Consent was sought from the administrators of the hospitals to permit the researcher conduct the research in the hospitals with a cover letter describing the nature of the work and purpose of the research. After considering the ethical implications of the study, the authorities allowed the researcher to conduct the study and only volunteered subjects who filled the consent form participated in the study. The study took place within April 2014 and two research assistants assisted the researcher in the distribution of the questionnaire. The English versions of the three questionnaire forms were administered simultaneously to all the nurses who volunteer to participate in the study. The head nurse for each unit was given the questionnaire forms for their unit. These units' heads administered the questionnaire to the participants in their units who filled and returned the questionnaire before they signed out from their shift duty. A total of 176 questionnaire forms were given out to the units' heads, but only 170 (96.59%) were returned. All the filled questionnaire forms were collected the next day (day two) from the units' heads. They were later collated, scored and used for the analysis.

3.3. Statistical analyses

The Pearson r correlation coefficient and mediation analyses were conducted with SPSS 19 and Conditional Process Analysis model 4 (see: Hayes, 2013). This statistical procedure calculates the indirect effect of a mediating variable through an observed variable on a latent variable in a multiple regression analysis using the principles of mediation analysis where by one variable (nurses' general self-concept) is regarded as the mediating variable, job satisfaction is the observed variable and burnout is the latent variable. The following parameters were also obtained; conditional effect coefficient, indirect effect coefficient, adjusted R square, and F-value. The analyses for the three subscales of burnout were computed independently for each anticipated indirect effects for models 1–3 and the coefficient values are conditional coefficients (see Hayes, 2013) (see Fig. 1).

4. Result

The correlation table showed that nurses' general self-concept was positively correlated with job satisfaction (r = .33; p = .01), but both nurses' general self-concept and job satisfaction was negatively correlated with the subscales of burnout (see Table 1).

The result showed that the conditional direct effects of job satisfaction (X) on nurses' general self-concept (M) was significant at B = .15, p < .01. Table 2 showed that the conditional direct effects of job satisfaction (X) and nurses' general self-concept (M) on burnout subscales: emotional exhaustion (Y1) and reduced
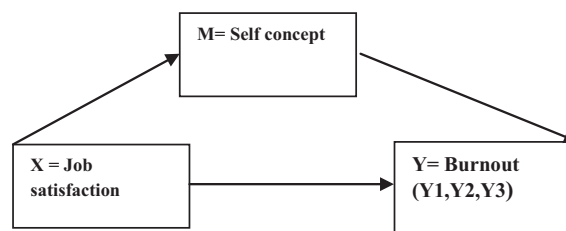

Fig. 1. Conceptual diagram. X = job satisfaction, M = nurses' general self-concept, Y1 = emotional exhaustion, Y2 = depersonalization, Y3 = reduced personal accomplishment.

personal accomplishment (Y3) were significant. Also the indirect influences of job satisfaction (X) on burnout (Y1 and Y3) through nurses' general self-concept (M) were significant (see models 1 and 3). However, the R-squared mediation effect sizes were very small at .04 (Hayes, 2013, p.191) for both emotional exhaustion and reduced personal accomplishment, the Boot *LLCI* and *ULCI* ranged from .02 to .08 for emotional exhaustion and .01–.09 for reduced personal accomplishment. For model 2 only the direct influence of job satisfaction (X) on depersonalization (Y2) was significant. Both the direct influence of general nurses' self-concept (M) on depersonalization (Y2) and the indirect influence of job satisfaction (X) on depersonalization (Y2) were not significant (see Table 2 model 2).

5. Discussion

The study examined whether self-concept mediated the relationship between job satisfaction and burnout among a sample of nurses in Nigeria. A preliminary analysis showed a significant positive correlation between nurses' self-concept and job satisfaction. Negative correlations were also found between job satisfaction, nurses' self-concept and the subscales of burnout. These findings were in concordance with the previous studies cited earlier in the body of this paper.

The result of the main analyses showed that nurses' general self-concept significantly mediated the relationship between job satisfaction and emotional exhaustion; job satisfaction and reduced personal accomplishment. However, R-squared mediation effect sizes for these indirect effects coefficients were very small .04 (Hayes, 2013, p.191) implying that caution must be taken in interpreting these results.

The findings of the present study were similar with the finding of Hombrados-Mendieta and Cosano-Rivas (2011) who found that factors such as workplace support and life satisfactions which have been found in studies (Chang, Mcbride-Chang, Stewart, & Au, 2003; Leung & Leung, 1992;) to be related to positive self-concept also mediated the relationship between job satisfaction and burnout. The findings were also in concordance with other studies (e.g., Lee & Ashforth, 1996; Payne, 2001) which showed that emotional exhaustion and personal accomplishment were significantly related to job related factors such as stress, and individual personality factors which have been found to be related with job

Table 1
Correlations between the observed, mediating and latent factors.

	Factors	1	2	3	4	5
1.	Self-concept	1				
2.	Job satisfaction	.33[**]	1			
3.	Emotional exhaustion	−.29[**]	−.25	1		
4.	Depersonalization	−.17[*]	−.21[*]	.60[**]	1	
5.	Reduced personal accomplishment	−.27[**]	−.31[**]	.26[**]	.29[**]	1

[*] p = .05.
[**] p = .01.

Table 2
Model summaries for the mediating role of self-concept on the relationship between job satisfaction and burnout.

Outcome					
	Adjusted R	MSE	df1	df2	F
Model 1: Emotional exhaustion (Y1)					
	.11	66.32	2	167	10.48**
Direct effect	B	SE	t	LLCI	ULCI
Job satisfaction	−.17	.07	−2.30*	−.30	−.02
Self-concept	−.47	.16	−2.99*	−.78	−.16
Indirect of X on Y1	−.07	.02		−.13	−.03
Model 2: Depersonalization (Y2)					
	.06	23.75	2	167	4.92*
Direct effect	B	SE	t	LLCI	ULCI
Job satisfaction	−.09	.04	−2.19*	−.18	−.01
Self-concept	−.13	.10	−1.40	−.32	.05
Indirect of X on Y2	−.02	.01		−.04	.01
Model 3: Personal accom. (Y3)					
	.13	45.70	2	167	12.16**
Direct effect	B	SE	t	LLCI	ULCI
Job satisfaction	−.20	.06	−3.27*	−.31	−.08
Self-concept	−.32	.13	−2.41*	−.57	−.06
Indirect of X on Y3	−.05	.02		−.09	−.01

B = conditional beta coefficient, LLCI = lower limit class interval, ULCI = upper limit class interval.
* $p = .05$.
** $p = .01$.

satisfaction and self-concept (Khamisa, Oldenburg, Peltzer, & Ilic, 2015; Packard & Motowidlo, 1987). The result did not show that self-concept significantly mediated the relationship between job satisfaction and depersonalization. This is in agreement with the study by Prosser et al. (1999) which found that depersonalization is more related to patient factor rather than individual factors.

The results of the present study makes sense because the measures of nurses' general self-concept which mediated the relationship between job satisfaction, emotional exhaustion and reduced personal accomplishment tapped into similar theoretical concept (people's feeling and thinking about themselves) (Coopersmith & Feldman, 1974; Herzberg & Mausner, 1959; Maslach & Jackson, 1981, 1986; Weiss et al., 1967). They are all intrinsic factors that directly affect the individual reactions to situations while, depersonalization theoretically deals with attitude toward others and pertains to extrinsic factors that may indirectly affect the individual reaction to situations (Coopersmith & Feldman, 1974; Maslach & Jackson, 1981, 1986).

6. Limitations/recommendations

Some of the limitations of the findings include the fact that the study adopted a cross sectional design because the variables cannot be easily manipulated experimentally, thus it utilizes only self-report questionnaire in collection of data for the study. Self-report measures might not be enough representatives of behavior and mental processes. Secondly, the effect sizes for the mediation effects were very small. Therefore caution must be taken in interpreting and generalizing this result. Additionally, mediation analysis used in analyzing the data is often used in experimental analysis to infer causal effect, however since experimental manipulations were not made in the study, causal effects cannot be claimed. Further studies can therefore explore an experimental design of examining the variables so that causal effects could be inferred. Also the small effect size may be a pointer to the fact that other factors such as personality traits and environmental factors could be explored to see their role in burnout syndrome.

In view of the mediating role of nurses' general self concept in job satisfaction and burnout, it is recommended that nurses in

Nigeria acquire self-reflection skills (Calsyn & Kenny, 1977). This will enable them gain in self-awareness so as to enable them evaluate their abilities, strengths, and shortcomings vis-à-vis job demands. This will likely act as a buffer even in the face of challenging job situations.

This study focused on Igbo nurses, it is recommended that subsequent studies sample nurses from other ethnic nationalities in Nigeria, and other African countries to ascertain possible cultural disparities.

6.1. Implication of the findings

The key implication of the finding is that individual internal factors may play active role in the manifestation of burnout syndrome. The negative conditional coefficients between nurses' general self-concept and burnout, job satisfaction and burnout and positive condition coefficient between job satisfaction and nurses' general self-concept were pointers that lower level of nurses' general self-concept or job satisfaction may contribute to increased burnout vice-versa. Theories proposed that self-concept and job satisfaction are acquired tendency which may be dependent on people's daily life experiences from work (Cowin, 2000, 2001, 2002; Shavelson et al., 1976; Weiss et al., 1967). Self-concept and job satisfaction could be modified or enhanced easily by changing some psycho-environmental experiences of the individual and workplace. Such modification can be integrated into the training program for the welfare and skill development for the staff and in the management of the entire organization. For instance self-enhancement model by Calsyn and Kenny (1977) was successfully used in improving student's self-concept which in turn reflected in their performance outcome. Such programs may also target issues that will improve the levels of job satisfaction among nurses, and these may in turn reduce the level of burnout they experience.

7. Conclusion

Summarily, burnout is a very serious syndrome which has the capacity of jeopardizing the entire effort made by government and private partners to improve the health care deliveries given the consequences (physical, psychological and interpersonal manifestations). The present study suggested that positive self-concept and improving the level job satisfaction among nurse may be helpful in reducing the level of burnout experienced nurses; this is because self-concept mediated the relationship between job satisfaction and burnout. However, more researches are needed that will show how self-concept and job satisfaction programs could be designed and integrated into staff development package for different health care organizations to reduce the prevalence of burnout among their staff.

Conflict of interest

None declared.

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